

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: March 4, 2006, 07:18:16 ; Search time 38 Seconds
(without alignments)
15.192 Million cell updates/sec

Title: US-10-697-886-2

Perfect score: 31

Sequence: 1 KVLRRH 6

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR 80:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	ID	Description
1	31	100.0	134	1 AWHUB	natriuretic peptid
2	31	100.0	541	2 D97930	conserved hypotet
3	30	96.8	127	1 LZP1	lysozyme (EC 3.2.1
4	30	96.8	238	2 H81069	transcription regu
5	28	90.3	37	2 E75312	ribosomal protein
6	28	90.3	176	1 S74642	hypothetical prote
7	28	90.3	184	2 C75362	conserved hypotet
8	28	90.3	194	2 S45561	RNA polymerase sig
9	28	90.3	246	2 B48350	infected-cell prot
10	28	90.3	277	2 A83721	nickel transport s
11	28	90.3	319	2 AF0228	probable transposa
12	28	90.3	340	2 T35394	probable glycerol
13	28	90.3	388	2 T36402	probable monooxyge
14	28	90.3	417	2 P95953	probable glycosylt
15	28	90.3	444	2 AH3174	glutamate-1-semial
16	28	90.3	459	2 H84030	glutamyl-tRNA redu
17	28	90.3	505	2 C84731	probable beta-amyl
18	28	90.3	604	2 B90289	conserved hypotet
19	28	90.3	824	2 A28229	DNA helicase II (i
20	28	90.3	827	2 H97606	probable DNA helic
21	28	90.3	827	2 AF3326	DNA helicase II (E
22	27	87.1	136	2 F81451	peroxide stress re
23	27	87.1	152	2 C72681	hypothetical prote
24	27	87.1	183	1 D64430	probable transcrip
25	27	87.1	196	2 S06581	finger protein (cl
26	27	87.1	197	2 T35766	hypothetical prote
27	27	87.1	211	2 E75305	hypothetical prote
28	27	87.1	250	2 A61153	spectinomycin aden
29	27	87.1	252	2 B81053	beta-1,4-glucosylt

RESULT 1

AWHUB

Natriuretic peptide B precursor [validated] - human
N:Alternate names: brain natriuretic factor-32 (BNF-32); brain natriuretic protein precursor
N:Contains: brain alpha natriuretic peptide; brain gamma natriuretic factor
C:Species: Homo sapiens (man)
C:Date: 07-Sep-1990 #sequence revision 02-Dec-1994 #text_change 09-Jul-2004
C:Accession: A36736; A30163; A34143; A34661; B34661
R:Seilhamer, J.J.; Arfsten, A.; Miller, J.A.; Lundquist, P.; Scarborough, R.M.; Lewicki
Biochem. Biophys. Res. Commun. 165, 650-658, 1989
A:Title: Human and canine gene homologs of porcine brain natriuretic peptide.
A:Reference number: A36736; MUID:90088474; PMID:2597152
A:Accession: A36736
A:Molecule type: DNA
A:Residues: 1-134 <SEI>
A:Cross-references: UNIPROT:P16860; UNIPARC:UPI00000350A5; GB:M31776; NID:gl79514; PIDN:
R:Sudoh, T.; Maekawa, K.; Kojima, M.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 159, 1427-1434, 1989
A:Title: Cloning and sequence analysis of cDNA encoding a precursor for human brain nat
A:Reference number: A30163; MUID:89193743; PMID:2522777
A:Accession: A30163
A:Molecule type: mRNA
A:Residues: 1-134 <SD>
A:Cross-references: UNIPARC:UPI00000350A5; GB:M31776; NID:gl79514; PIDN:AAA35603.1; PII
R:Kambayashi, Y.; Nakao, K.; Mukoyama, M.; Saito, Y.; Ogawa, Y.; Shiono, S.; Inouye, K.
FEBS Lett. 259, 341-345, 1990
A:Title: Isolation and sequence determination of human brain natriuretic peptide in hum
A:Reference number: A34143; MUID:90092577; PMID:2136732
A:Accession: A34143
A:Molecule type: protein
A:Residues: 103-134 <YAM>
A:Cross-references: UNIPARC:UPI00000350A8
R:Hino, J.; Tateyama, H.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 167, 693-700, 1990
A:Title: Isolation and identification of human brain natriuretic peptides in cardiac at
A:Reference number: A30161; MUID:90211249; PMID:2138890
A:Accession: A34661
A:Molecule type: protein
A:Residues: 27-58 <HIN>
A:Cross-references: UNIPARC:UPI00001733AB
A:Accession: B34661
A:Molecule type: protein
A:Residues: 103-134 <HI2>
A:Cross-references: UNIPARC:UPI00001733AB
C:Genetics:
A:Gene: GDB:NPPB
A:Cross-references: GDB:127884; OMIM:600295
A:Map position: 1p36-lp36
A:Introns: 44/3, 130/1
C:Superfamily: natriuretic peptide A precursor
C:Keywords: brain; diuretic; hormone; natriuretic; osmoregulation
F:1-36/Domain: signal sequence #status predicted <SIG>

ALIGNMENTS

30	27	87.1	254	2	D81824
31	27	87.1	263	1	H64069
32	27	87.1	334	2	B83488
33	27	87.1	350	2	T03291
34	27	87.1	360	2	T26037
35	27	87.1	360	2	S32695
36	27	87.1	380	2	S17676
37	27	87.1	406	2	E72366
38	27	87.1	443	2	C71904
39	27	87.1	443	2	D64610
40	27	87.1	469	2	A71369
41	27	87.1	487	1	Q08E05
42	27	87.1	570	2	G85046
43	27	87.1	571	2	AG3174
44	27	87.1	642	2	T41690
45	27	87.1	678	2	C72319

beta-1,4-glucosylt
beta-lactamase reg
probable L-malate
farnesyl-pyrophosp
hypothetical prote
Wnt-2 protein - Ca
NADH2 dehydrogenas
conserved hypotet
anaerobic c4-dicar
dicarboxylate memb
probable sugar ABC
UL37 protein precu
hypothetical prote
acetylactate synth
conserved hypotet
flagellar biosynth

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: March 4, 2006; 07:14:47 ; Search time 185 Seconds
(without alignments)
14.250 Million cell updates/sec

Title: US-10-697-886-2

Perfect score: 31

Sequence: 1 KVLRRH 6

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A Geneseq 21:*

1: Geneseqp1980s:*

2: Geneseqp1990s:*

3: Geneseqp2000s:*

4: Geneseqp2001s:*

5: Geneseqp2002s:*

6: Geneseqp2003as:*

7: Geneseqp2003bs:*

8: Geneseqp2004s:*

9: Geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	31	100.0	6	AAW51290	Human B-t
2	31	100.0	6	AAW51290	Human B-t
3	31	100.0	6	ADP49271	Natriuret
4	31	100.0	15	ADJ79686	Human Bra
5	31	100.0	21	AAW25774	Human bra
6	31	100.0	23	ADL22365	Natriuret
7	31	100.0	23	ADL22362	Natriuret
8	31	100.0	23	ADL22364	Natriuret
9	31	100.0	23	ADL22361	Natriuret
10	31	100.0	23	ADL22358	Natriuret
11	31	100.0	23	ADL22359	Natriuret
12	31	100.0	24	AAW46799	Human bra
13	31	100.0	24	ADL22366	Natriuret
14	31	100.0	24	ADL22360	Natriuret
15	31	100.0	24	ADL22363	Natriuret
16	31	100.0	25	ADL22352	Natriuret
17	31	100.0	25	ADL22356	Natriuret
18	31	100.0	25	ADL22355	Natriuret
19	31	100.0	26	AAW67295	Human bra
20	31	100.0	26	ADL22357	Natriuret
21	31	100.0	26	ADL22354	Natriuret
22	31	100.0	30	AAW67297	Human bra
23	31	100.0	31	AAW34302	Mutated B
24	31	100.0	32	AAW40861	BNP. 3/19

25	31	100.0	32	2	AAW34301	Mutated h
26	31	100.0	32	2	AAW36381	Recombina
27	31	100.0	32	2	AAW70090	Brain nat
28	31	100.0	32	2	AAW67040	Brain nat
29	31	100.0	32	2	AAW51263	Human B-t
30	31	100.0	32	2	AAW51270	Human B-t
31	31	100.0	32	2	AAW51258	Human B-t
32	31	100.0	32	2	AAW51305	Human B-t
33	31	100.0	32	2	AAW51259	B-type na
34	31	100.0	32	2	AAW51260	Type-B na
35	31	100.0	32	2	AAW51279	Human B-t
36	31	100.0	32	2	AAW51300	Human B-t
37	31	100.0	32	2	AAW51273	Human B-t
38	31	100.0	32	2	AAW51274	Human B-t
39	31	100.0	32	2	AAW51265	Human B-t
40	31	100.0	32	2	AAW51269	Human B-t
41	31	100.0	32	2	AAW51277	Human B-t
42	31	100.0	32	2	AAW51283	Human B-t
43	31	100.0	32	2	AAW51276	Human B-t
44	31	100.0	32	2	AAW51286	Human B-t
45	31	100.0	32	2	AAW51266	Human B-t

ALIGNMENTS

RESULT 1

AAW51290

ID AAW51290 standard; peptide; 6 AA.

XX AC AAW51290;

XX DT 15-SEP-1998 (first entry)

XX DE Human B-type natriuretic peptide variant partial sequence.

XX KW B-type natriuretic peptide; clearance receptor; electrolyte balance; diuretic; vasodilator; circulation; natriuresis; diuresis; hNPR-C; cyclic guanosine monophosphate; cGMP; second messenger; variant.

XX OS Synthetic.

XX PN WO9817690-A1.

XX PD 30-APR-1998.

XX PF 09-OCT-1997; 97WO-US018384.

XX PR 22-OCT-1996; 96US-00731880.

XX PA (GETH) GENENTECH INC.

XX PI Lowe DG, Schoenfeld JR;

XX DR WPI; 1998-261429/23.

XX PT Variants of brain natriuretic peptide with reduced affinity for clearance receptor -- for treating disorders of electrolyte balance and as diuretics and vasodilators, have increased circulation time and in vivo activity.

XX PS Claim 7; Page 46; 55pp; English.

XX CC The invention relates to variants of brain natriuretic peptide (BNP) with reduced affinity for the human clearance receptor (hNPR-C) relative to wild-type BNP. The variants are used: (a) to treat or prevent disorders of electrolyte balance, or (b) to induce natriuresis, diuresis or vasodilation. Typical applications are in congestive heart failure, arrhythmia, hypertension, nephrotic syndrome, pre-eclampsia, premenstrual syndrome, hepatic cirrhosis, pulmonary disease and renal failure (associated with inefficient renal perfusion or reduced glomerular filtration rate). The variants are also useful as intermediates and as modulators of other compounds with similar activities. Although the variants have reduced affinity for NPR-C, they have at least equal